Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (CANCELLED)

2. (CURRENTLY AMENDED) An endolumenal stent system, comprising:

an endolumenal stent;

a porous surface on the endolumenal stent comprising a first material and having a plurality of pores; and

a second composite material that is different than the first material and that comprises a plurality of discrete particles comprising a bioerodible material in combination with a bioactive agent;

wherein said plurality of discrete particles are structurally co-deposited together with said first material on said endolumenal surface and within each of the plurality of pores that are formed at least in part around the discrete particles and thereby comprising a structurally co-deposited composite surface coating; and

wherein the discrete particles comprise an outer diameter, the pores comprise an inner diameter, and the inner diameter is substantially equivalent to the outer diameter where the discrete particles are located within said pores.

3. (ORIGINAL) The system of claim 2, wherein the particles comprise an outer diameter that is less than about 5 microns.

4. (ORIGINAL) The system of claim 2, wherein the particles comprise an outer diameter that is less than about 2 microns.

5. (ORIGINAL) The system of claim 2, wherein the particles comprise an outer diameter that is less than about 1 micron.

6. (ORIGINAL) The system of claim 2, wherein the particles comprise a bioerodable polymer in combination with the bioactive agent.

7. (CANCELLED)

8. (PREVIOUSLY PRESENTED) The system of claim 2, wherein the pores comprise an inner diameter that is greater than about 1 micron and less than about 5 microns.

9. (PREVIOUSLY PRESENTED) The system of claim 2, wherein the pores comprise an inner diameter that is greater than about 1 micron and less than about 2 microns.

10. (CANCELLED)

11. (PREVIOUSLY PRESENTED) The system of claim 2, wherein the first material is inherently porous.

12. (PREVIOUSLY PRESENTED) An endolumenal stent system, comprising:

an endolumenal stent;

a porous surface on the endolumenal stent comprising a first material and having a plurality of pores; and

a second composite material that is different than the first material and that is located within each of the pores and comprising a bioerodable material in combination with a bioactive agent;

wherein the first material is not inherently porous; and

wherein the pores are formed at discrete locations within the first material along the surface.

13. (PREVIOUSLY PRESENTED) The system of claim 12, wherein the pores are laser cut into the first material.

14. (PREVIOUSLY PRESENTED) The system of claim 12, wherein the plurality of pores are photochemically etched into the first material.

15. (PREVIOUSLY PRESENTED) The system of claim 12, wherein the plurality of pores are chemically etched into the first material.

16. (PREVIOUSLY PRESENTED) The system of claim 2, wherein the first material comprises a sintered material.

17. (PREVIOUSLY PRESENTED) The system of claim 2, wherein:

the endolumenal stent comprises a scaffold constructed from a third material;

the first material comprises a coating located on and in contact with the third material; and

the pores are located within the first coating material.

18. (PREVIOUSLY PRESENTED) The system of claim 17, wherein the first coating material comprises a non-polymeric material.

19. (ORIGINAL) The system of claim 18, wherein:

the non-polymeric material comprises an electrochemically deposited material.

20. (ORIGINAL) The system of claim 19, wherein the electrochemically deposited material comprises an electrolessly electrochemically deposited material.

21. (PREVIOUSLY PRESENTED) The system of claim 20, wherein the electrolessly electrochemically deposited material comprises a composite with a metal and a reducing agent of the metal.

22. (ORIGINAL) The system of claim 21, wherein the metal comprises nickel.

23. (ORIGINAL) The system of claim 22, wherein the reducing agent comprises phosphorous.

24. (PREVIOUSLY PRESENTED) The system of claim 22, wherein the third material comprises a stainless steel alloy.

25. (PREVIOUSLY PRESENTED) The system of claim 22, wherein the third material comprises a nickel-titanium alloy.

26. (ORIGINAL) The system of claim 21, wherein the metal comprises cobalt.

27. (ORIGINAL) The system of claim 26, wherein the reducing agent comprises phosphorous.

28. (PREVIOUSLY PRESENTED) The system of claim 26, wherein the third material comprises a cobalt-chromium alloy.

29. (PREVIOUSLY PRESENTED) The system of claim 2, wherein the endolumenal stent comprises a scaffold constructed from a third material, wherein a fourth material is provided on the third material, and the first material comprises a coating on the scaffold with the fourth material located between the first material and the third material.

30. (PREVIOUSLY PRESENTED) The system of claim 29, wherein the fourth material comprises an electroplated metal.

31. (ORIGINAL) The system of claim 30, wherein the electroplated metal comprises electroplated nickel.

32. (CURRENTLY AMENDED) The system of claim 29, further comprising a fifth material between the fourth material and the ~~first~~ coating ~~material~~.

33. (CURRENTLY AMENDED) The system of claim 32, wherein:

the fourth material comprises electroplated metal;

the fifth material comprises a first layer of an electrolessly electrochemically deposited composite material with a metal and a reducing agent of the metal; the ~~first~~ coating ~~material~~ comprises a second layer of an electrolessly electrochemically deposited composite material with a metal and a reducing agent of the metal~~,~~; and

the second composite material is located within the pores of the ~~first~~ coating ~~material~~.

34. (PREVIOUSLY PRESENTED) The system of claim 2, wherein the bioactive agent comprises an anti-restenosis agent.

35. (PREVIOUSLY PRESENTED) The system of claim 2, wherein the bioactive agent comprises an anti-inflammatory agent.

36. (PREVIOUSLY PRESENTED) The system of claim 2, wherein the bioactive agent comprises an anti-proliferative agent.

37. (PREVIOUSLY PRESENTED) The system of claim 2, wherein the bioactive agent comprises an anti-proliferative agent in combination with an anti-inflammatory agent.

38. (PREVIOUSLY PRESENTED) The system of claim 2, wherein the bioactive agent comprises des-aspartate angiotensin 1.

39. (PREVIOUSLY PRESENTED) The system of claim 2, wherein the bioactive agent comprises at least one of sirolimus, tacrolimus, everolimus, paclitaxel, a steroid, exochelin, dexamethasone, nitric oxide, apocynin, gamma-tocopherol, an antibody, a growth factor, a combination or blend thereof, or an analog, precursor or derivative thereof.

40. (PREVIOUSLY PRESENTED) The system of claim 2, wherein the ratio of the bioactive material to the bioerodable material in the composite material is at least about 0.5:1.

41. (PREVIOUSLY PRESENTED) The system of claim 2, wherein the ratio of the bioactive material to the bioerodable material in the composite material is at least about 1:1.

42. (PREVIOUSLY PRESENTED) The system of claim 2, wherein the ratio of the bioactive material to the bioerodable material in the composite material is at least about 1.5:1.

43. (PREVIOUSLY PRESENTED) The system of claim 2, wherein the bioerodable material comprises a bioerodable polymer material.

44. (CURRENTLY AMENDED) An endolumenal stent system, comprising:

an endolumenal stent with a substrate with an outer surface;

a coating material coupled to the outer surface;

a plurality of discrete composite particles structurally co-deposited within the coating material on the outer surface to thereby comprise a structurally co-deposited composite surface coating on the outer surface with the coating material formed at least in part around the composite particles;

wherein the composite particles comprise a bioerodable material in combination with a bioactive agent; and

wherein the composite particles are adapted to release the bioactive agent and the bioerodable material is adapted to erode from the coating material to thereby leave a plurality of voids in the remaining coating material when the endolumenal stent is implanted within a body of a patient.

45. (PREVIOUSLY PRESENTED) A system for depositing a bioactive coating onto a surface of an endolumenal stent, comprising:

a coating environment;

a plurality of metal ions within the coating environment;

a plurality of discrete composite particles located within the coating environment and that each comprises a composite material that comprises a bioactive agent in combination with a bioerodable carrier material; and

wherein the coating environment is adapted to co-deposit the metal from the metal ions into a coating material in combination with the composite particles onto the endolumenal stent surface to form a structurally co-deposited composite surface coating when the endolumenal stent is exposed to the coating environment, and such that the co-deposited composite surface coating is adapted to elute the bioactive agent therefrom and the bioerodable carrier material is adapted to erode therefrom when the coated surface is exposed to a body of a patient.

46. (CURRENTLY AMENDED) A system for depositing a bioactive coating onto a surface of an endolumenal stent, comprising:

a coating environment with a coating precursor material;

a plurality of discrete composite particles located within the coating environment and that comprise a composite material that comprises a bioerodable material in combination with a bioactive agent;

wherein the coating environment is adapted to co-deposit a coating material from the precursor material in combination with the discrete composite particles onto the surface so as to form a structurally co-deposited composite surface coating that is adapted to release the bioactive agent and erode the bioerodable material from the coating material that remains on the surface when the coated surface is exposed to a body of a patient.